a fueling port in the upper body segment;

a shutoff valve in the upper body segment, the shutoff valve including a controllable shutoff valve closure having a shutoff-valve first side in fluid flow communication with the tank port and a shutoff-valve second side in fluid flow communication with the engine supply port and with the fueling port;

a defueling port in the lower body segment;

a vent port in the upper body segment; and

a defuel/vent valve in the middle body segment, the defuel/vent valve comprising

a controllable ball-valve defueling closure having a defueling-valve first side in fluid-flow communication with the shutoff-valve second side and a defueling-valve second side in fluid-flow communication with the defueling port, and

a controllable ball-valve vent closure having a vent-valve first side in fluid-flow communication with the vent port, and a vent-valve second side in fluid-flow communication with the defueling-valve second side,

wherein the defueling closure and the vent closure are mounted on a common defuel/vent valve stem, and

wherein the defueling closure and the vent closure cannot be open at the same time.

3. (Amended) The fuel-control manifold of claim 1, further including

an instrumentation port in the upper body segment, the instrumentation port being in fluid-flow communication with the shutoff-valve second side.

5. (Amended) A fuel-control manifold, comprising:

a body;

a tank port in the body;

an engine supply port in the body;

a fueling port in the body;

a shutoff valve in the body, the shutoff valve including a controllable shutoff valve closure having a shutoff-valve first side in fluid flow communication with the

tank port and a shutoff-valve second side in fluid flow communication with the engine supply port and the fueling port;

a defueling port in the body;

a vent port in the body; and

a defuel/vent valve in the body, the defuel/vent valve comprising a defuel/vent valve closure structure including

a controllable ball-valve defueling closure having a defueling-valve first side in fluid-flow communication with the second shutoff-valve side and a defueling-valve second side in fluid-flow communication with the defueling port, and

a controllable ball-valve vent closure having a vent-valve first side in fluid-flow communication with the vent port, and a vent-valve second side in fluid-flow communication with the defueling-valve second side, wherein the defueling closure and the vent closure are mounted on a common defuel/vent valve stem, and

wherein the defueling closure and the vent closure cannot be open at the same time.

9. (Amended) The fuel-control manifold of claim 5, further including

an instrumentation port in the body, the instrumentation port being in fluid-flow communication with the shutoff-valve second side.

13. (Amended) The fuel-control manifold of claim 10, further including

an instrumentation port in the body, the instrumentation port being in fluid-flow communication with the shutoff-valve second side.

14. (Amended) The fuel-control manifold of claim 10, wherein the defuel/vent valve closure structure comprises

a controllable ball-valve defueling closure having a defueling-valve first side in fluid-flow communication with the second shutoff-valve side and a defueling-valve second side in fluid-flow communication with the defueling port, and

a controllable ball-valve vent closure having a vent-valve first side in fluid-flow communication with the vent port, and a vent-valve second side in fluid-flow

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communication with the defueling-valve second side, and wherein the defueling closure and the vent closure are mounted on a common defuel/vent valve stem.

16. (Amended) A fuel-control manifold, comprising:

a body;

a tank port in the body;

an engine supply port in the body;

a fueling port in the body;

a shutoff valve in the body, the shutoff valve including a controllable shutoff valve closure having a shutoff-valve first side in fluid flow communication with the tank port and a shutoff-valve second side in fluid flow communication with the engine supply port and with the fueling port;

a defueling port in the body;

a vent port in the body; and

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a defuel/vent valve structure in the body, the defuel/vent valve structure comprising

a defueling closure having a defueling-valve first side in fluid-flow communication with the shutoff-valve second side and a defueling-valve second side in fluid-flow communication with the defueling port, and

a vent closure having a vent-valve first side in fluid-flow communication with the vent port, and a vent-valve second side in fluid-flow communication with the defueling-valve second side,

wherein the defueling closure and the vent closure cannot be open at the same time, the shutoff valve and the defuel/vent valve being leak free over a temperature range of from -40°F to +180°F and over a pressure range of from 72 pounds per square inch to 6000 pounds per square inch.